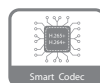# DH-IPC-HDW2831EM-AS-S2

8MP Lite IR Fixed-focal Eyeball Network Camera

· 8MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
· Outputs max. 8MP (3840 × 2160) @15 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps
· H.265 codec, high compression rate, ultra-low bit rate
· Built-in IR LED, max IR distance: 30 m
· ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
· Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
· Intelligent detection: Intrusion, tripwire
· Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
· Supports max. 256 GB Micro SD card, built-in MIC
· 12V DC/PoE power supply
· IP67 protection

Series Overview

With upgraded H.265 encoding technology, Dahua Lite series network camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better color image in the condition of low illumination. It supports SD card storage, dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Starlight

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

Protection (IP67, wide voltage)

P67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Image Sensor	1/2.7" 8Megapixel progressive CMOS
Effective Pixels	3840 (H) ×2160 (V)
ROM	128 MB
RAM	256 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.009 Lux@F2.0
IR Distance	30 m (98.43 ft)
IR On/Off Control	Auto/Manual
IR LEDs Number	2 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm 3.6 mm
Max. Aperture	F2.0 F2.0
Field of View	2.8 mm: Pan 105° × Tilt 56° × Diagonal 125° 3.6 mm: Pan 87° × Tilt 47° × Diagonal 104°
Iris Type	Fixed
Close Focus Distance	2.8 mm: 1.0 m (3.3 ft) 3.6 mm: 1.9 m (6.2 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	74.7 m (245.1 ft)	29.9 m (98.1 ft)	14.9 m (48.9 ft)	7.5 m (24.6 ft)
	3.6 mm	106.7 m (350.1 ft)	42.7 m (140.1 ft)	21.3 m (69.6 ft)	10.7 m (35.1 ft)

Smart event

General IVS Analytics	Tripwire; intrusion

Video

Video Compression	H.265; H.264; H.264B; MJPEG(only supported by the sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main stream: 3840 × 2160 (1 fps–15 fps) 2688 × 1520 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–25 fps) 704 × 480 (1 fps–30 fps)
Stream Capability	2 streams

Resolution	3840 × 2160 (3840 × 2160); 3072 × 2048 (3072 × 2048); 3072 ×1728 (3072 × 1728); 2592 × 1944 (2592 × 1944); 2688 × 1520 (2688 × 1520); 3M (2048 × 1536); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–8192 kbps H.265: 12 kbps–8192 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(RoI)	Yes (4 areas)
Smart IR	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

Audio

Built-in MIC	Yes
Audio Compression	G.711A; G.711Mu; G.726

Network

Network	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; 802.1x; Bonjour
Interoperability	ONVIF(Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20
Edge Storage	Dahua Cloud; FTP; SFTP; Micro SD Card (support max. 256 GB); NAS
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android

Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B

Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 7.2W

Environment
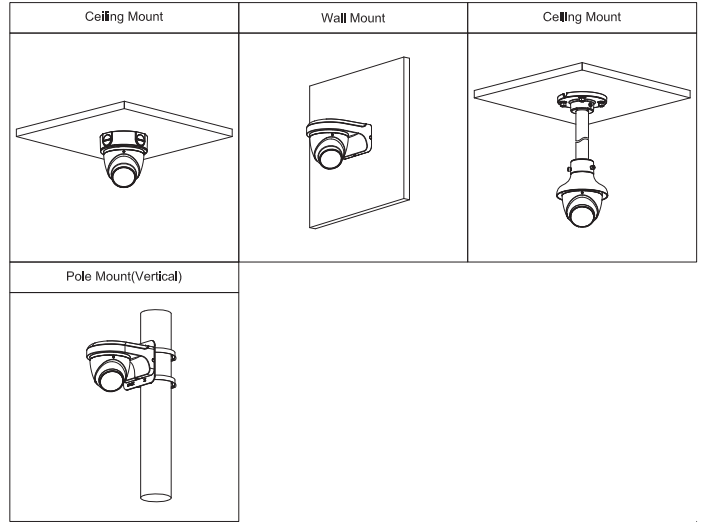
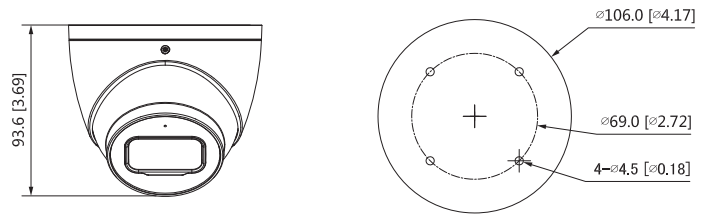|	
Operating Conditions	−40°C to +55°C (−40°F to +131°F)/less than ≤95% RH
Storage Temperature	−40°C to +60°C (−40°F to +140°F)
Protection	IP67

Structure

Casing	Metal
Dimensions	93.6 mm × Φ106 mm (3.7" × Φ4.2")
Net Weight	530 g (1.1 lb)
Gross Weight	800 g (1.7 lb)

Ordering Information

Type	Part Number	Description
8MP Camera	DH-IPC-HDW2831EM-AS-S2	8MP Lite IR Fixed-focal Eyeball Network Camera,PAL
Accessories (optional)	PFA130-E	Junction Box
	PFB204W	Wall Mount
	PFA152-E	Pole Mount
	PFA106	Mount Adapter
	PFB220C	Cell Mount
	PFM321D	DC12V1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

LR1002-1ET/1EC
Single-port Long
Reach Ethernet over
Coax Extender

PFM900-E
Integrated Mount
Tester

PFM114
TLC SD Card

Ceiling Mount

Wall Mount

Ceiling Mount

Pole Mount(Vertical)

Dimensions (mm[inch])

93.6 [3.69]

⌀106.0 [⌀4.17]
⌀69.0 [⌀2.72]
4−⌀4.5 [⌀0.18]

Accessories

Optional:

PFA130-E
Junction Box

PFB204W
Wall Mount

PFA152-E
Pole Mount

PFA106
Mount Adapter

PFB220C
Cell Mount

PFM321D
DC12V1A
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